

Engineering Soil Classification using Laboratory Test Results

Course Outline

Engineering Soil Classification using Laboratory Test Results

Overview of Soil Classification

- History
- Commonly Used Soil Classification Systems
- Importance

Overview of Common Soil Exploration Techniques

- Hand Augers/Test Pits
- Standard Penetration Tests
- "Undisturbed" Sampling

Overview of Standard Soil Classification Tests

- Grain Size Analysis
- Discussion of Correlation of Grain Size Analysis Results to Soil Permeability
- Activity No. 1: Plasticity Index Determination from Atterberg Test Results

Unified Soil Classification System (USCS, ASTM D2487)

- Activity No. 2: Course Grained Soil Sample
- Activity No. 3: Fine Grained Soil Sample

Overview/Comparison of Lab and Field Classification Methods

- Unified Soil Classification System (USCS, ASTM D2488)
- Modified Burmeister Classification

Questions & Answers

Closing Remarks